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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/839,872 | 04/20/2001 | Yasuaki Yamagishi | 450100-03167 | 4338 |

20999 7590 10/21/2004

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| EXAMINER |
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KIM, JUNG W

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| ART UNIT | PAPER NUMBER |
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2132

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 09/839,872 | Applicant(s) YAMAGISHI ET AL. | |
| | Examiner Jung W Kim | Art Unit 2132 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims 1-15 have been examined.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "System and method for managing changes in a public key certificate directory".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Micali U.S. Patent No. 6,097,811 (hereinafter Micali).

5. As per claim 1, Micali teaches a transmitting apparatus for transmitting a layer structure of a directory which manages public key certificate information in a layer manner (see Micali, Abstract), comprising:

- a. managing means for making certificate authority information corresponding to a container entry which can store its own subordinate information, making end entity information correspond to a leaf entry which is under domination of the container entry and cannot store its own subordinate information, and managing a layer structure of a directory constructed by the container entry and the leaf entry (see Micali, col. 4, line 4-col. 5, line 33 and definition of root/leaf node in Merkle tree);
- b. detecting means for detecting a change of the layer structure of the directory which is managed by the managing means and obtaining differential information constructed by a difference of the change of the layer structure of the directory on the basis of a detection result (see Micali, col. 7, lines 41-65); and
- c. transmitting means for transmitting the differential information detected by the detecting means (see Micali, col. 7, lines 52-58),
- d. wherein information which can obtain latest public key certificate information and lapse information of the latest public key certificate information

are stored into the container entry and/or the leaf entry (see Micali, col. 6, lines 18-45; col. 7, lines 59-65).

The aforementioned cover the limitations of claim 1.

6. As per claim 2, Micali teaches an apparatus as outlined above in the claim 1 rejection under 35 U.S.C. 102(e). In addition, the lapse information is a serial number of the public key certificate information. See Micali, col. 6, lines 18-45. The aforementioned cover the limitations of claim 2.

7. As per claim 3, Micali teaches an apparatus as outlined above in the claim 1 rejection under 35 U.S.C. 102(e). In addition, one of the latest public key certificate information and the information for obtaining the latest public key certificate information can be selected and stored in to attributes of the container entry and/or the leaf entry. See Micali, col. 5, lines 4-7. The aforementioned cover the limitations of claim 3.

8. As per claim 4, Micali teaches an apparatus as outlined above in the claim 3 rejection under 35 U.S.C. 102(e). In addition, the information which is stored into the attributes can be changed between the latest public key certificate information and the information for obtaining the latest public key certificate information in accordance with an elapsed time from an updating event in which the difference has been detected by the detecting means. See Micali, see col. 5, lines 40-47. The aforementioned cover the limitations of claim 4.

9. As per claim 5, it is a method claim corresponding to claims 1-4 and it does not teach or define above the information claimed in claims 1-4. Therefore, claim 5 is rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 1-4.

10. As per claims 6-8, Micali teaches an apparatus as outlined above in the claim 1-4 rejections under 35 U.S.C. 102(e). In addition, Micali teaches a corresponding receiving apparatus comprising:

- e. receiving means for making transmitted certificate authority information correspond to a container entry, making end entity information correspond to a leaf entry, and receiving differential information comprising a difference of a change of a layer structure of a directory (see Micali, col. 5, lines 15-34; col. 7, lines 41-65);

- f. managing means for managing the layer structure of the directory constructed on the basis of the differential information received by the receiving means; and changing means for selectively fetching the differential information and changing the layer structure of the directory which is managed by the managing means (see Micali, col. 7, lines 59-65).

The aforementioned cover the limitations of claims 6-8.

11. As per claim 9, it is a method claim corresponding to claims 6-8 and it does not teach or define above the information claimed in claims 6-8. Therefore, claim 9 is rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 6-8.

12. As per claims 10-14, they are system claims corresponding to claims 1-9 and they do not teach or define above the information claimed in claims 1-9. Therefore, claims 10-14 are rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 1-9.

13. As per claim 15, it is a method claim corresponding to claims 10-14 and it does not teach or define above the information claimed in claims 10-14. Therefore, claim 15 is rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 10-14.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kocher U.S. Patent No. 6,442,689.

Micali U.S. Patent No. 5,666,416.

Merkle U.S. Patent No. 4,309,569.

Telephonic Inquiry Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W Kim whose telephone number is (703) 305-8289. The examiner can normally be reached on M-F 9:00-6:00.

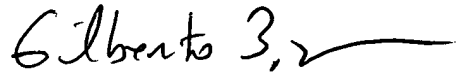
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim
Examiner
Art Unit 2132

Jk
October 12, 2004



GILBERTO BARRON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100